



Phase Diagram of Quarter-Filled Band Organic Salts [EDT-TTF-CONMe₂](2)X, X=AsF₆ and Br

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Titre	Phase Diagram of Quarter-Filled Band Organic Salts [EDT-TTF-CONMe ₂](2)X, X=AsF ₆ and Br
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Auteur	Auban-Senzier, Pascale [1], Pasquier, Claude [2], Jérôme, D. [3], Suh, Steve [4], Brown, Stuart-E. [5], Mézière, Cécile [6], Batail, Patrick [7]
Type	Article scientifique dans une revue à comité de lecture
Année	2009
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Résumé en anglais	<p>An investigation of the P-T phase diagram of the quarter-filled organic conductors, [EDT-TTF-CONMe₂]₂X is reported on the basis of transport and NMR studies of two members, X=AsF₆ and Br of the family. The strongly insulating character of these materials in the low-pressure regime has been attributed to a remarkably stable charge-ordered state confirmed by ¹³C NMR and the only existence of 1/4 Umklapp e-e scattering favoring a charge ordering instead of the 1D Mott localization seen in (TMTTF)₂X and (TMTSF)₂X which are 1/4-filled compounds with dimerization. A nonmagnetic insulating phase instead of the spin density wave state is stabilized in the deconfined regime of the phase diagram. This sequence of phases observed under pressure may be considered as a generic behavior for 1/4-filled conductors with correlations.</p>
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